Evidence of the impact of COVID-19 across the cancer pathway: Key Stats

Cancer Intelligence Team, last updated 11/03/2021

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Together we will beat cancer

Overview

- We're seeing an effect of earlier pauses to **screening** programmes, with fewer patients beginning treatment for cancer following a referral from cancer screening (e.g. down 50% for Apr2020-Jan2021 vs Apr2019-Jan2020 in England).
- Monthly numbers of **urgent suspected cancer referrals** were overall back to around/almost pre-covid levels at the end of 2020, but have fallen very slightly for Jan 2021 and substantial variation persists by cancer type (with lung and urological USC referrals particularly still below pre-covid levels). Overall there's no sign the accumulated backlog (of ~400k in UK) is coming through yet.
- Although slightly better than earlier months, there were around 6-9 times more (500-800% more!) patients on waiting lists for **key diagnostic tests** who've been waiting for 6 or more weeks at the end of January (vs. Jan 2020) in England.
- **Nearly 44k fewer patients started treatment** for cancer during Apr-Jan in the UK vs Apr-Jan 2019/20 (this figure is borne out by rapid registration/pathology as proxy incidence data). The most recent monthly data show that numbers of patients **beginning treatment for cancer** were coming back to around pre-covid levels, however the January 2021 figures show another decrease occurring with the second lockdown.

Screening

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Impact on cancer screening

UK:

3 million

fewer people screened between Mar-Sept 2020*

Cancer screening was effectively paused from late March 2020 across the UK nations, and restarted from ~June 2020 (see Notes). Screening programmes are now working through the backlog.

**Number of people starting cancer treatment following screening compared to same time the previous year:*

NB this can be considered a rough proxy for no. fewer cancer pts diagnosed through screening

England:
9,300 (⇩50%)
fewer people
(Apr20-Jan21)

- Latest month: ⇩22% in Jan 2021 vs Jan 2020

Scotland:
930 (⇩71%)
fewer people
(Apr20-Sept20)

The above are adjusted for working days

Equivalent figures aren't available for Wales or Northern Ireland

Routine data are not available to show the number of people being screened/invited since programmes restarted

**Estimate based on pre-covid averages of the number of people screened with FIT/FOBT bowel screening, breast screening mammogram and cervical smear programmes across the UK countries. This figure factors in the pause to programmes, with available information about programmes beginning to re-start from around June onwards.*

Urgent Suspected Cancer Referrals

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Impact on urgent suspected cancer referrals

Based on Cancer Waiting Times Data

UK:
~400K(⇩16%)
fewer people estimated on an USC referral between Mar 2020-Jan 2021*

CRUK estimate based on England & Wales trends

England: 348K (⇩16%) fewer people Mar-Jan*

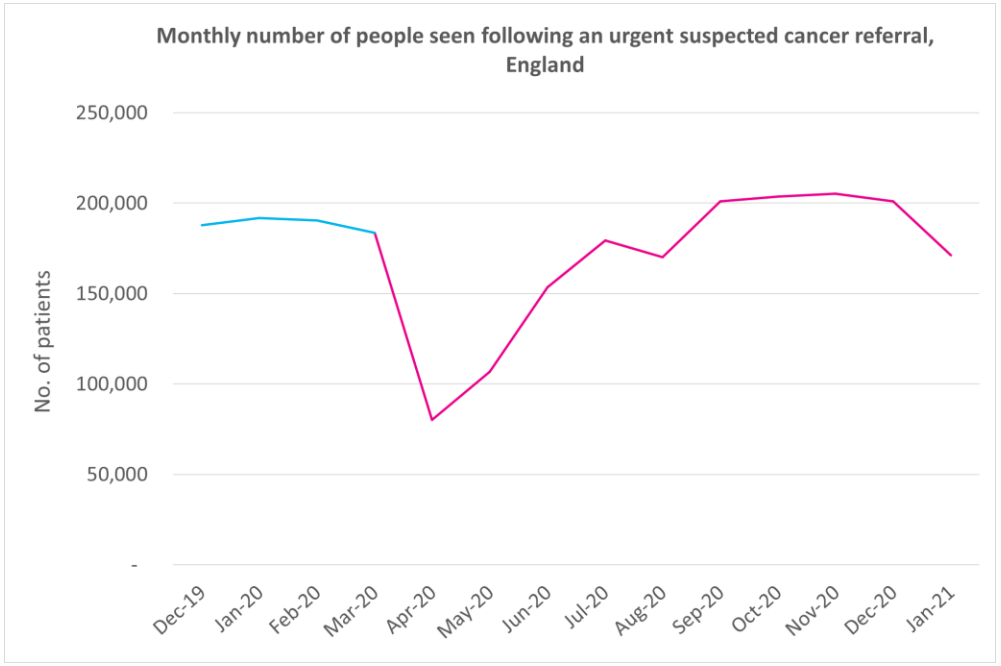
- Worst fall in April (⇩60%)*
- Recovered to around pre-COVID levels by Nov/Dec (⇧2%)*, but slight fall for Jan (⇩2%)*

Wales: 20K (⇩22%) fewer people Mar-Nov*

- Worst in April (⇩63%*)
- Recovered to ⇩3% by Nov* (latest month available)

*Compared to same time in the previous year, adjusted for working days

Monthly no.s in England were back to around pre-covid levels at end of 2020 but fell slightly for Jan 2021: (NB figures in chart are not adjusted for working days)



Equivalent figures aren't available for Scotland or Northern Ireland

While data on numbers of USC referrals aren't routinely published, reports from Northern Ireland indicated a 60-70% drop in urgent suspected cancer referrals & a press announcement from Scotland reports a 72% drop in urgent suspected cancer referrals around the peak of the pandemic in April.

Impact on urgent suspected cancer referrals by type - England

Recovery of monthly numbers varies by suspected cancer type, with numbers of **suspected lung** cancer urgent referrals (still) the **most impacted**, followed by **suspected urological** cancer referrals amongst others. Suspected **breast** has been one of the quickest types to recover (⇧**14%** **in Jan 2021** vs Jan 2020).

Worst impacted types in the **latest month** available:

Jan 2021 vs 2020:

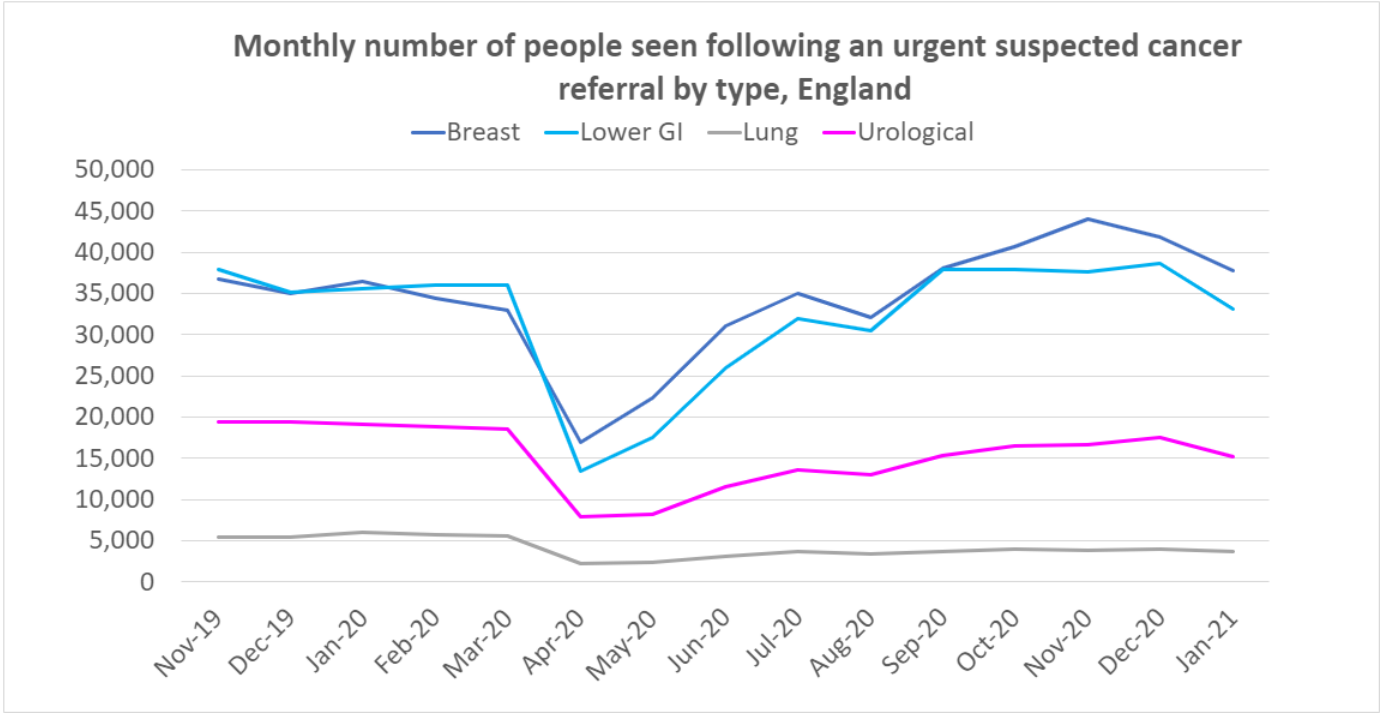
Lung: ⇩33% (1.8K fewer)
- Fallen **again** since Dec (was ⇩**30%)**

Urological: ⇩ 13% (2.3K fewer)
- Improved since Dec (was ⇩**14%)**

Skin: ⇩ 11% (3.6K fewer)
- Fallen again since **Dec** (was ⇩3%)

Brain/CNS: ⇩ 11% (86 fewer)
- Fallen again since Dec (was ⇩**2%)**

In England, overall for **Mar 2020-Jan 2021**:
- **20.3K** fewer people on an urgent suspected **lung** cancer referral (⇩34%)
- **51.0K** fewer people on an urgent suspected **urological** cancer referral (⇩25%)



Based on NHS-E Cancer Waiting Times Data

All comparisons on this slide have been adjusted for working days.

Impact on urgent suspected cancer referrals by type - Wales

For Wales, recovery in monthly numbers similarly varies by urgent suspected cancer type, with numbers of **suspected lung** cancer urgent referrals (still) the **most impacted**, followed by **suspected urological** cancer referrals amongst others.

Worst impacted types in the **latest month** available:

Nov 2020 vs 2019:

Lung: ⇩43% (140 fewer)
- Fallen since Oct (was **⇩20%)**

Urological: ⇩17% (210 fewer)
- Fallen since Oct (was **⇩14%)**

Head&neck: ⇩13% (130 fewer)
- Improved since Oct (was **⇩16%)**

Skin: ⇩5% (90 fewer)
- Improved since Oct (was ⇩20%)

November is the latest month of data available, after a change in how the Cancer Waiting Times figures were published.

Based on Cancer Waiting Times Data

All comparisons on this slide have been adjusted for working days.

Equivalent figures aren't available for Scotland or Northern Ireland

Diagnostic test numbers and waiting times

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Impact on number of diagnostic tests - England

Diagnostic test activity isn't cancer specific, but we have pulled out 7 key **endoscopy** and **radiology** tests (combined) which can be used to diagnose cancer

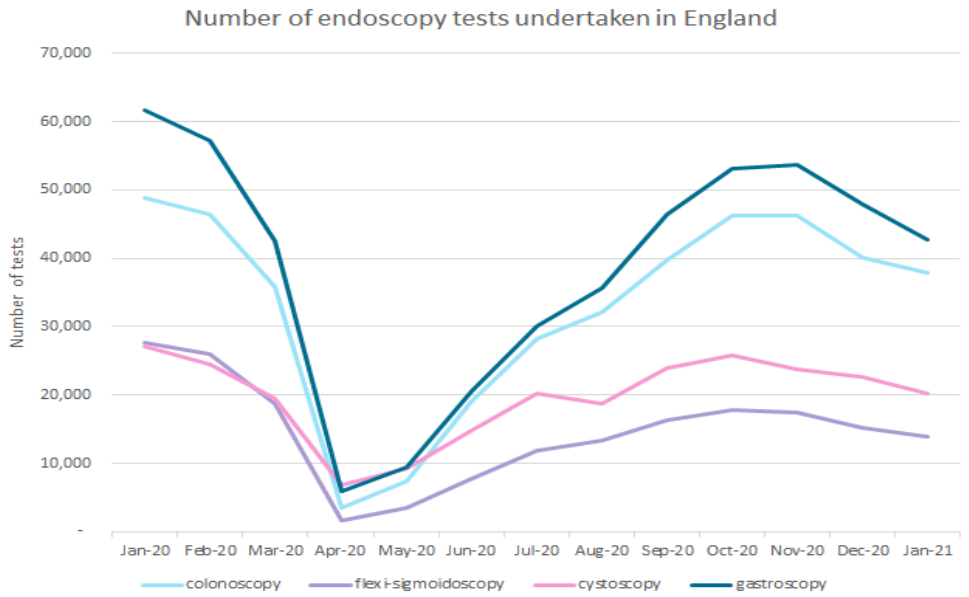
England:
4.4m (⇩25%)*
fewer key diagnostic tests combined between Mar 2020-Jan 2021

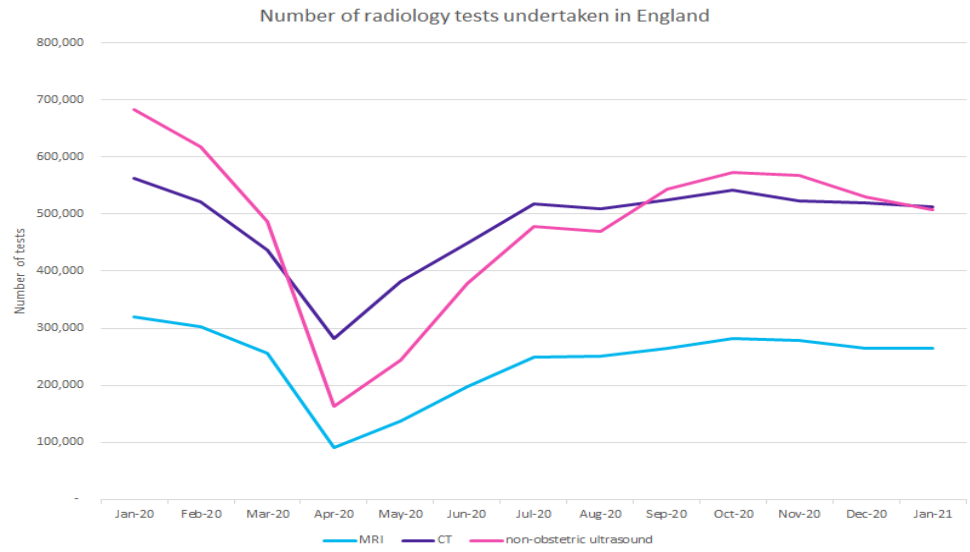
Endoscopy
671K fewer
(⇩39%)*
Mar 20–Jan 21

Radiology
3.8m fewer
(⇩23%)*
Mar 20-Jan 21

*Compared to same time period the previous year, adjusted for working days

- Total **endoscopy** activity in Jan **2021**: After being down **12%** in Dec 2020, numbers dropped further in Jan 2021; around **50,700 fewer tests (-31%)** compared to Jan 2020.
- Total **radiology** activity in Jan **2021**: After being down **7%** in Dec 2020, numbers dropped further this month; more than **281,000 fewer tests (-18%)** compared to Jan 2020.





Data Source: NHSE Diagnostic Waiting Times and Activity. For more specific test trends please contact stats.signoff@cancer.org.uk

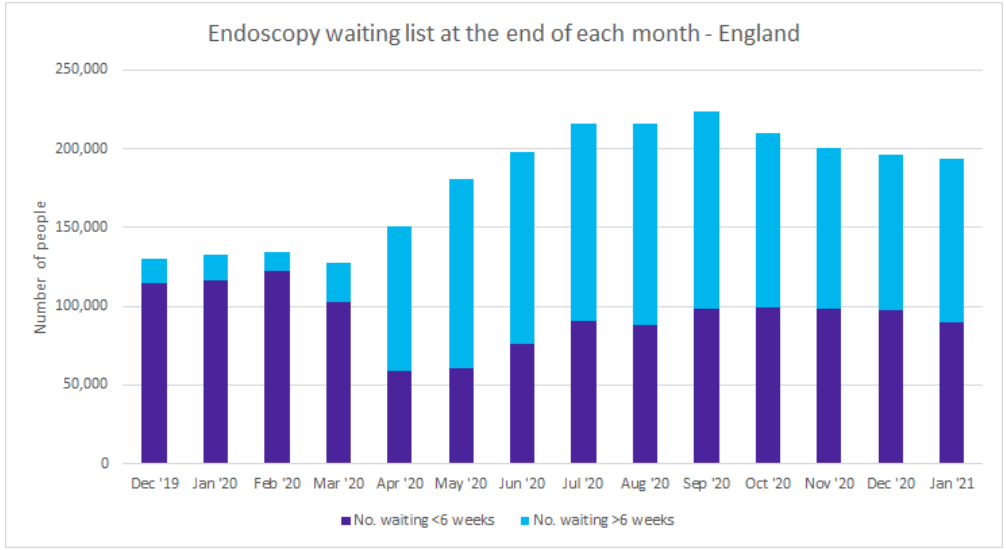
Impact on diagnostic waiting times - England

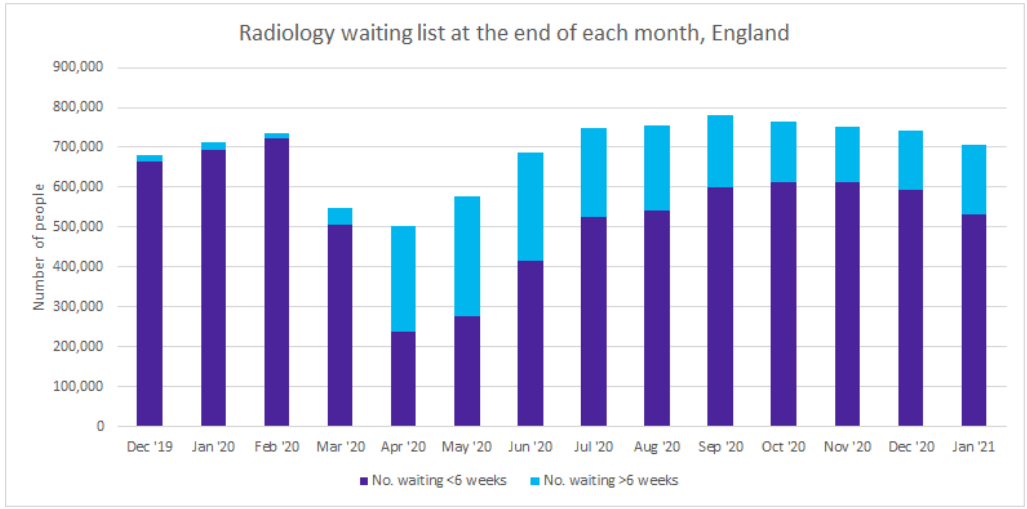
Note that diagnostic waiting times data are **also not cancer specific** (we don't know for which patients waiting for a test cancer might be suspected).

There's been a big impact on the numbers of patients waiting for key endoscopy and radiology diagnostic tests, with large increases in those waiting 6 weeks or longer. Aerosol-generating procedures like colonoscopies were stopped due to increased COVID-19 risk, or are taking longer due to infection-control measures, so waiting lists for **Endoscopies** particularly have increased.

As of end of Jan 2021	Endoscopy	Radiology
Patients waiting	193,000 (⇧**46**%*)	706,000 (↓ **1**%*)
Patients waiting 6+ weeks	103,300 (6x increase*)	172,500 (9x increase*)
% 6+ week waits	53% (compared to 12%*)	24% (compared to 3%*)

*compared to January 2020





These data cover:
Radiology = MRI scans, CT scans, non-obstetric ultrasound
Endoscopy = colonoscopies, flexi-sigmoidoscopies, cystoscopies and **gastroscopies**

*Data Source: NHSE Diagnostic Waiting Times and Activity data

Impact on diagnostic waiting times – devolved nations

Diagnostic waiting times data are **not cancer specific** but provide a steer as to which tests are particularly impacted in terms of access as well as activity. There's been a particular impact for endoscopy: aerosol-generating procedures like colonoscopies were stopped due to the increased COVID-19 risk, or take longer due to infection-control measures, so waiting lists for **endoscopies** have increased for Northern Ireland and Scotland (similar to what we see for England). However, for **Wales** although endoscopy waiting lists have been impacted, waiting lists for **radiology** have been more impacted and seen a **larger increase** for patients waiting **8 or more** weeks.

Northern Ireland

As of end of Dec:

Endoscopy

Patients on waiting list:
24,600 (⇧ 33%, 6.2K more*)
Patients waiting 6+ weeks:
19,900 (⇧ 62%, 7.6K more*)
Patients waiting 9+ weeks:
18,400 (⇧ 75%, 7.9K more*)

Radiology**

Patients on waiting list:
42,300 (⇩ 30%, 18.2K less*)
Patients waiting 6+ weeks:
23,300 (⇩ 41%, 16.2K less*)
Patients waiting 9+ weeks:
18,900 (⇩ 41%, 13.3K less*)

Scotland

As of end of Dec:

Endoscopy

Patients on waiting list:
31,600 (⇧ 44%, 9.7K more*)
Patients waiting 6+ weeks:
21,500 (3x increase, 14.5K more*)

Radiology

Patients on waiting list:
69,300 (⇧ 6%, 3.6K more*)
Patients waiting 6+ weeks:
23,100 (2x increase, 12.1K more*)

Wales

As of end of Dec:

Endoscopy

Patients on waiting list:
21,000 (⇧ 63%, 8.1K more*)
Patients waiting 8+ weeks:
13,600 (5x increase, 10.7K more*)

Radiology

Patients on waiting list:
60,100 (⇧ 44%, 18.4K more*)
Patients waiting 8+ weeks:
27,100 (45x increase, 26.5K more*)

***vs end of Dec 2019**

****NI radiology waiting list figures saw a drop in Dec 2020, we have heard anecdotally regional groups have been prioritising getting through radiology backlogs**

These data cover:
Radiology = CT Scan, MRI Scan, Barium Studies, Non-Obstetric Ultrasound
Endoscopy = Colonoscopy, Cystoscopy, flexi-sigmoidoscopies, gastroscopy (Scotland also includes upper and lower endoscopy)

Data Source: Diagnostic Waiting Times data (Public Health Scotland, Dept. of Health NI, NHS Wales)

Cancer treatment

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Impact on number of patients beginning treatment

Change in cancer patients starting treatment (cumulative from April and latest month)

England: After a fall of 20% in Apr 2020*, and further falls during the 1st lockdown, the number of patients beginning cancer treatment had begun to recover, but progress has slipped slightly in Jan 2021 with an 8% decrease compared with Jan 2020.

UK
-43.7K
(⇩15%)
fewer cancer patients starting treatment Apr20-Jan21***

England
-38.2K
(⇩15%)
Apr-Jan*

-2k (⇩8%)
Jan*

Wales
-1.8K
(⇩14%)
Apr-Dec*

-160 (⇩10%)
Dec*

Northern Ireland
-680
(⇩13%)
Apr-Sep*

-80 (⇩ 8%)
Sep*

Scotland**
-3.1K
(⇩24%)
fewer cancer patients starting treatment Apr-Sep*

*compared to same time period 2019/20, adjusted for working days **monthly data not available for Scotland
*** based on the most recent data by nation as indicated in the individual circles

Data Sources: NHS Cancer Waiting Times data (England); Public Health Scotland Cancer Waiting Times; Welsh Government Cancer Waiting Times; and Dept. of Health Northern Ireland Waiting Times Statistics

Patients beginning treatment by site – England

Change in cancer patients starting treatment (cumulative from April, and latest month)

*compared to same time period 2019/20, adjusted for working days

Breast
-10.3K (⇩25%)
Apr-Jan*

-330 (⇩9%)
Jan*

Urological
-12.5K
(⇩24%)
Apr-Jan*

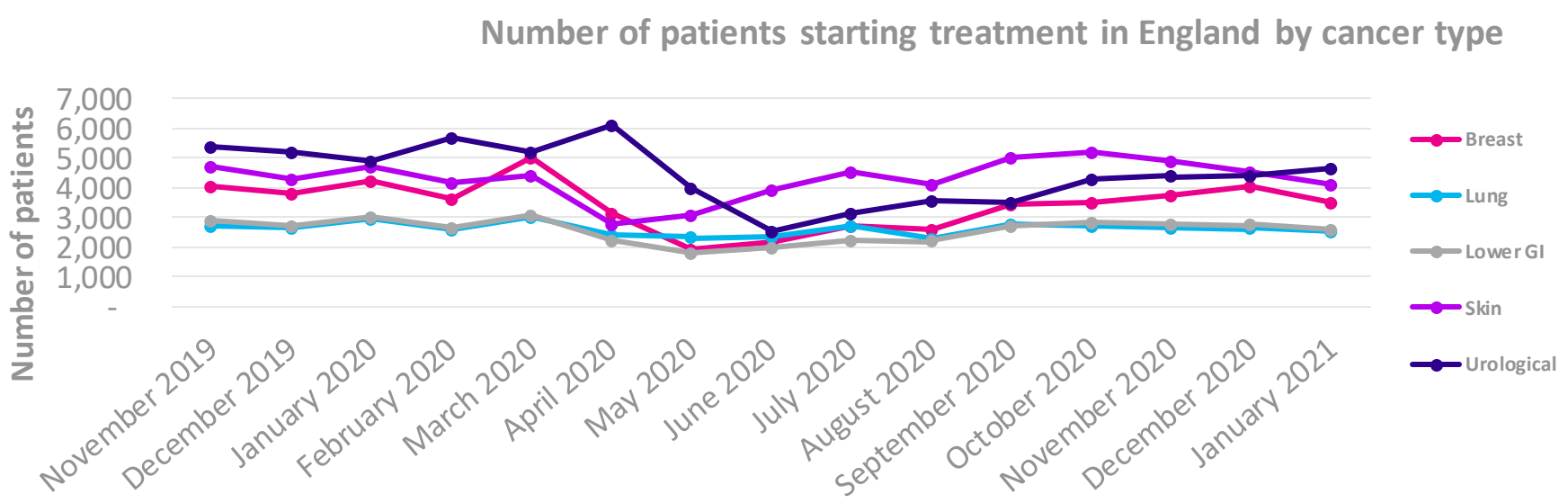
-1k (⇩20%)
Jan*

Lower GI
-4.1K (⇩15%)
Apr-Jan*

-190 (⇩7%)
Jan*

Lung
-2.6K (⇩9%)
Apr-Jan*

-190 (⇩7%)
Jan*



During the 2nd national lockdown in January the number of patients starting cancer treatment decreased across all cancer types. This reduction was much smaller than seen in the 1st lockdown in April 2020, with the exception of the number of urological cancer patients starting treatment which was 20% reduced from Jan 2020 - comparable to the reduction seen in April (-22% compared to April 2019).

Data Source: NHS Cancer Waiting Times data

Patients beginning treatment by site – Wales

Change in cancer patients starting treatment (cumulative from April and latest month, urgent and non-urgent combined)

Breast
-660 (⇩32%)
Apr-Dec*

-30 (⇩13%)
Dec*

Urological
-490 (⇩19%)
Apr-Dec*

-75 (⇩24%)
Dec*

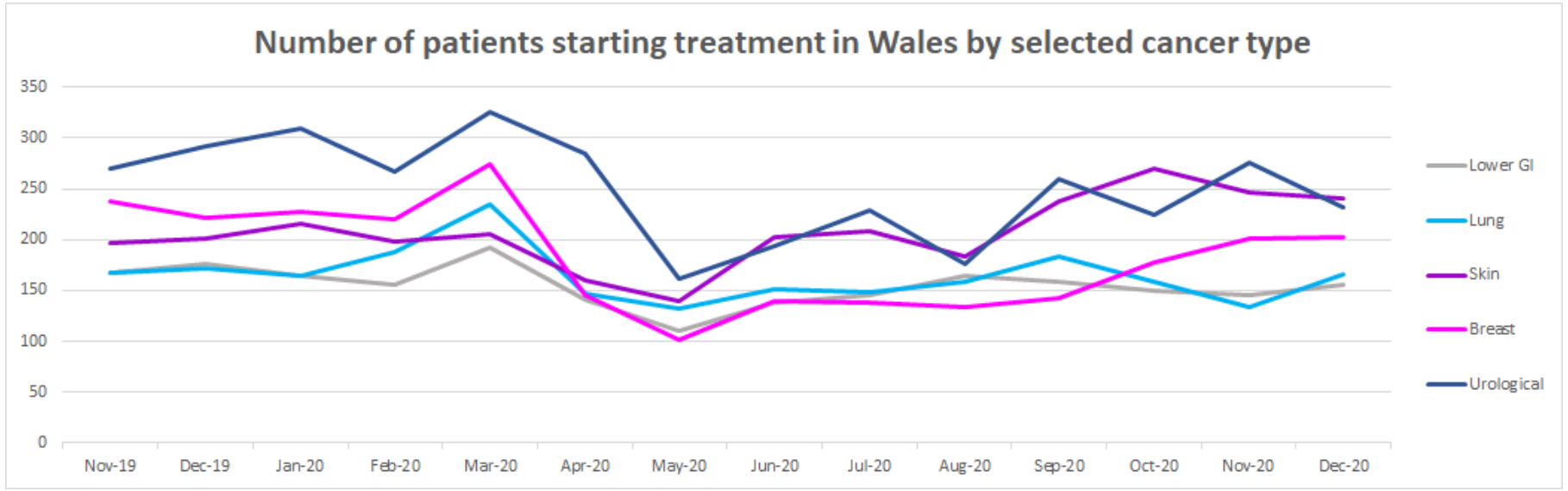
Lower GI
-280 (⇩18%)
Apr-Dec*

-30 (⇩16%)
Dec*

Lung
-190 (⇩12%)
Apr-Dec*

-15 (⇩8%)
Dec*

*compared to same time period 2019, adjusted for working days



Despite a recovery to pre-COVID levels for urological cancer in November, numbers starting treatment have fallen again in December. Recovery continues to be slow for breast and lower GI cancers.

Data Source: Welsh Government Cancer Waiting Times

Patients beginning treatment by site – Scotland

Change in cancer patients starting treatment (cumulative from April and latest quarter)

Breast
-830 (⇩33%)
Apr-Sept*

-380 (⇩31%)
Q2 2020*

Urological
-620 (⇩22%)
Apr-Sept*

-380(⇩28%)
Q2 2020*

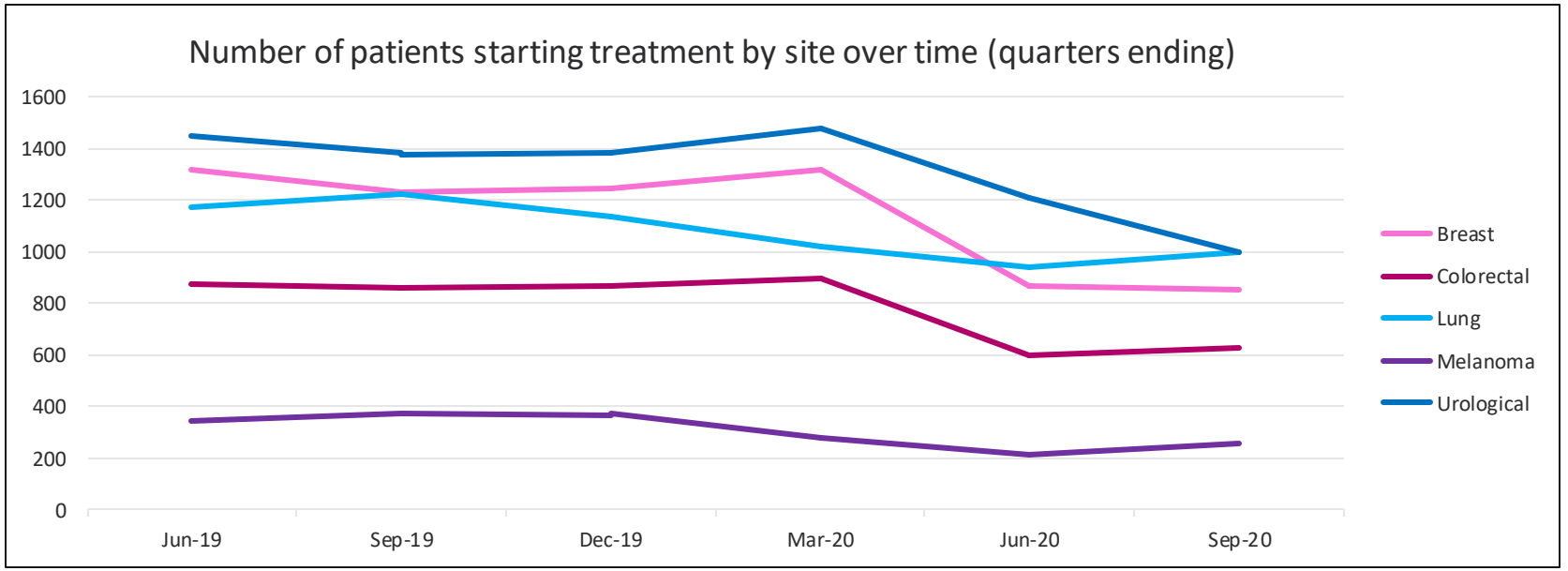
Colorectal
-510 (⇩30%)
Apr-Sept*

-240(⇩27%)
Q2 2020*

Lung
-450 (⇩19%)
Apr-Sept*

-220(⇩18%)
Q2 2020*

*compared to same time period 2019



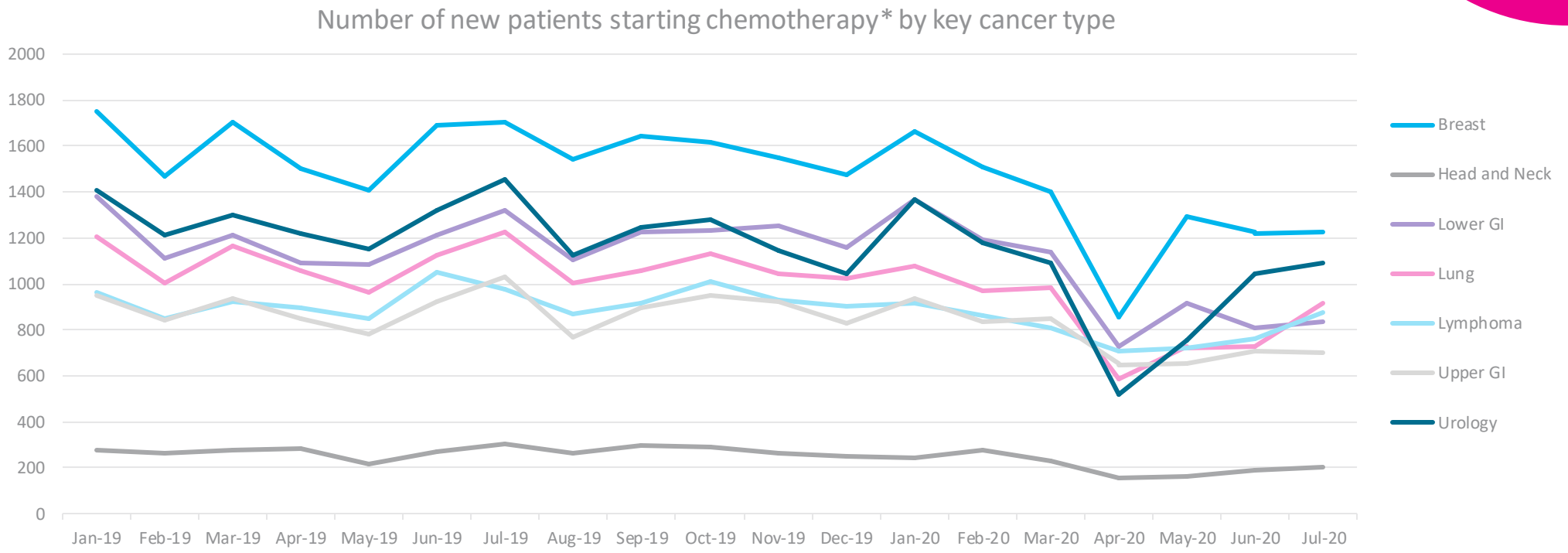
Data for Scotland are only available to end of September. Slow recovery to that point for breast, urological, and colorectal cancer, echoing patterns seen across England and Wales.

Data Source: Cancer Waiting Times data, Public Health Scotland

Impact on chemotherapy* - England

Breast, lower GI and urological were most impacted in July

There were around **11,000 fewer new patients starting chemotherapy** between **Apr-Jul 2020** compared to the same period the previous year, **a 28% decrease compared to pre-COVID levels*** The biggest decrease was seen in April (-40% compared with April 2019)**. In **July, the most recent month available, the number of new patients starting chemotherapy was still reduced by 25%** compared to the same time the year before.

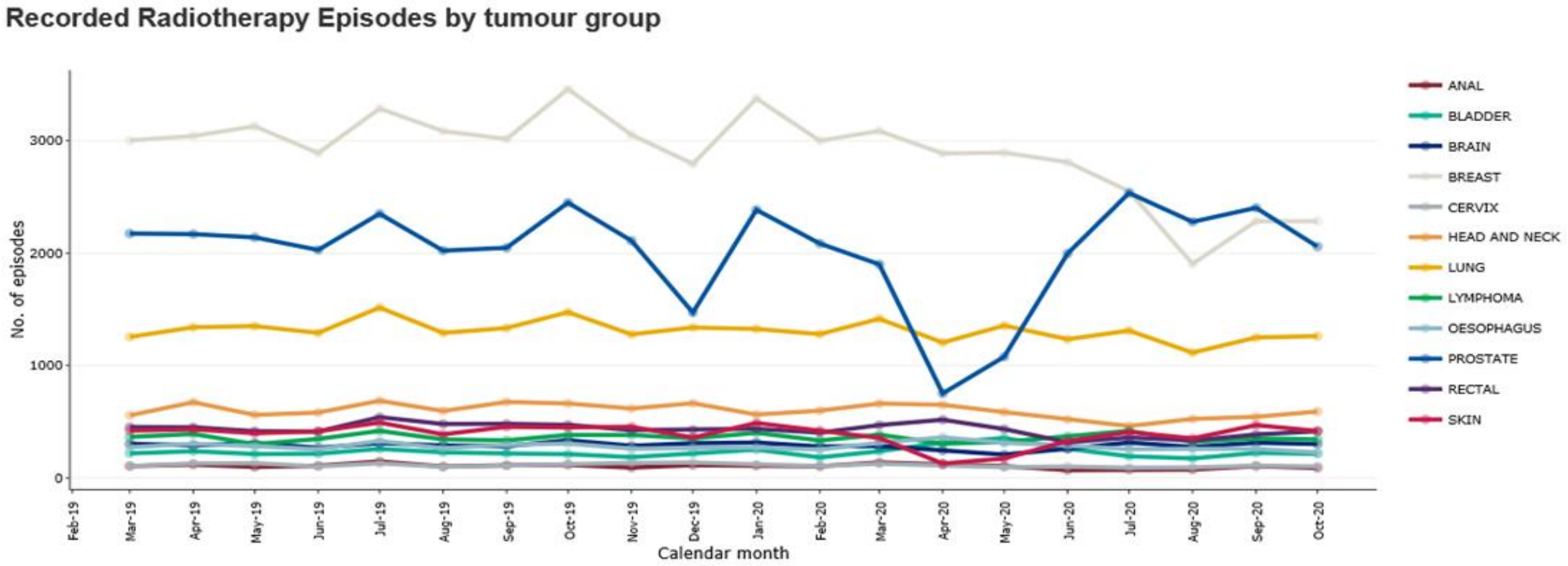


* Including all Systemic Anti Cancer Therapies (SACT): immunotherapy, hormonal treatments, cytotoxic chemotherapy, etc.
**All figures are adjusted for working days
Source: PHE SACT COVID-19 Dashboard, https://www.cancerdata.nhs.uk/covid-19/sact, accessed 8/03/2021

Impact on radiotherapy activity - England

Breast, anal, oesophagus ⇩ in Oct

There were around **9,100 fewer radiotherapy episodes between Apr-Oct 2020** compared to the same period the previous year, **86% of pre-COVID levels*.** The biggest decrease was seen in April although this varies by cancer type. In September activity remained reduced compared to the same time the previous year (-11%) and further decreased in October (-17% vs October 2019)*.



*Figures in text adjusted for working days

Source: PHE RTDS COVID-19 Dashboard, https://www.cancerdata.nhs.uk/covid-19/rtdsxt , accessed 11/02/2021

Number of cancer surgeries* – England

Change in number of cancer surgeries (cumulative from April and latest month)

-21.5k (⇩34%) fewer cancer surgeries April-August**

Head & Neck
-1.2K (⇩40%) Apr-Aug**
-140 (⇩24%) Aug**

Breast
-7.7K (⇩39%) Apr-Aug**
-1.5k (⇩38%) Aug**

Prostate
-1.5K (⇩38%) Apr-Aug**
-115 (⇩17%) Aug**

Lung
-1.2K (⇩36%) Apr-Aug**
-260 (⇩39%) Aug**

Oesophago-gastric
-350 (⇩33%) Apr-Aug**
-50 (⇩26%) Aug**

Urological (ex. prostate)
-1.4K (⇩30%) Apr-Aug**
-200 (⇩22%) Aug**

Surgical cancer services still considerably impacted up to August 2020. In August, the latest available month, there were a total of 3.7k fewer cancer surgeries, a reduction of 30%.

*Figures refer to tumour resection procedures only, and do not capture palliative or other symptom-relieving surgeries that do not also attempt to remove the tumour. Figures relating to all cancers combined are based on a subset of cancer types as procedure list codes have not been defined for all cancers.

**compared to same time period 2019, adjusted for working days

Data Source: PHE Rapid Registration Dataset, CAS2101 snapshot

Cancer incidence

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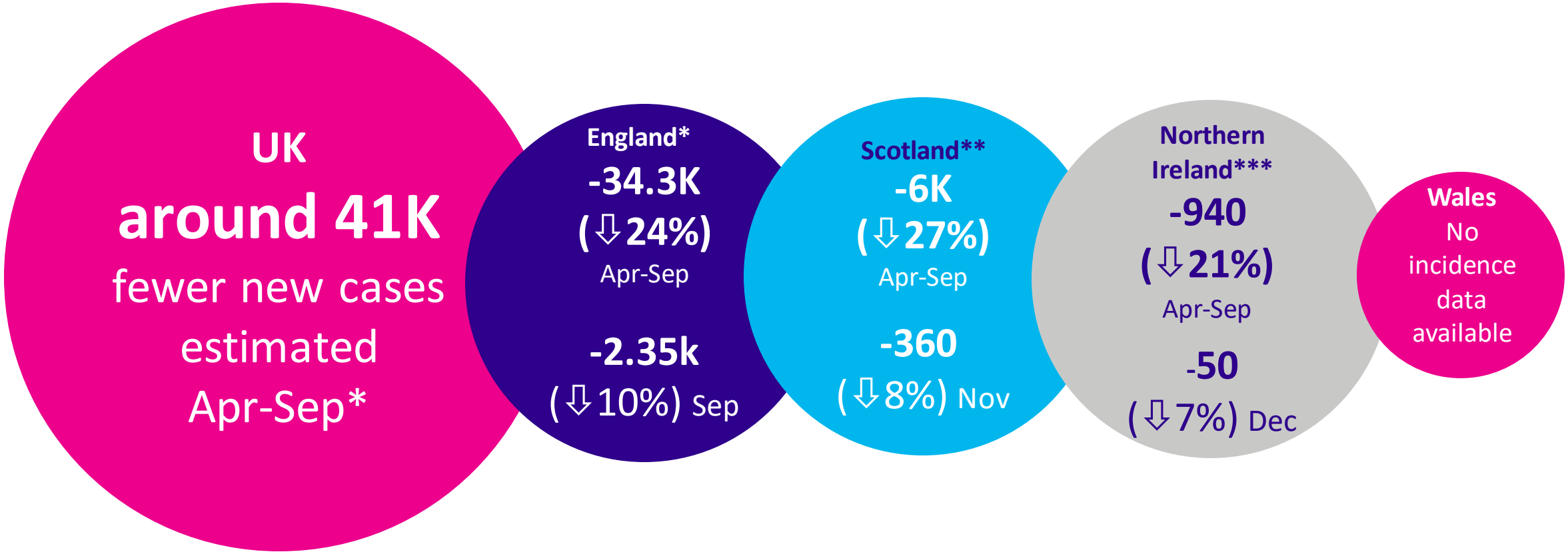
Incidence (rapid registrations or pathology as proxy)

Difference in number of new cases (cumulative from April to latest month with data for all countries, and latest month for each country) – note these % changes and number fewer cases are **known to be slight overestimates**, due to missing data because of diagnosis route, mortality soon after diagnosis, etc.



*compared to same time period 2019, adjusted for working days, rapid registration data (note ~18% of cases are missing and ~5% of cases are known to have incorrect cancer type/diagnosis date; data completeness/quality better for more vs less common cancer types, age <70 vs 70+, pathology vs no pathology, better vs worse survival). Latest data Sep 2020

** compared to same time period 2019, adjusted for working days, pathology samples finding cancer (note this does not include all patients who have been newly diagnosed with cancer, and also will include some patients who are being followed-up from an earlier diagnosis of cancer). Latest data Nov 2020

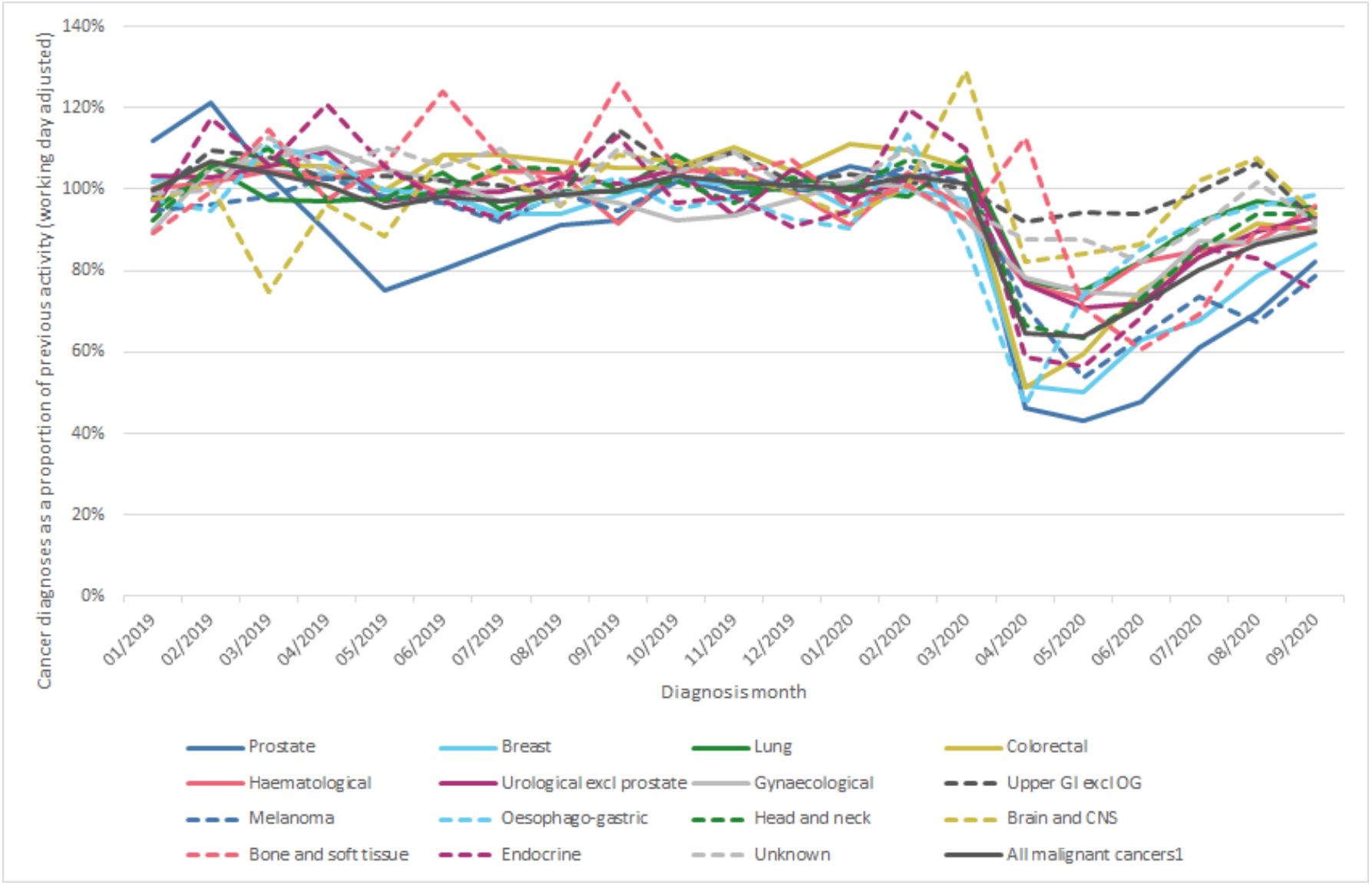
***compared to same time period 2019, adjusted for working days, pathology samples indicating cancer (note some of these "missing" patients may have a clinical only diagnosis (e.g. as result of an EP). Latest data Dec 2020

Incidence by cancer type (rapid registrations) - England

See caveats re data completeness below

- **Apr-Sep 2020:** number of diagnoses fell for all cancer groups – worst for **prostate** (58% of previous activity), best for upper GI (96% of previous activity).

- **Sep 2020:** diagnoses had reached 85%+ of previous activity for all cancer groups except prostate (82%), melanoma (79%), and endocrine (75%).



compared to same time period 2019, adjusted for working days, rapid registration data (note ~18% of cases are missing and ~5% of cases are known to have incorrect cancer type/diagnosis date; data completeness/quality better for more vs less common cancer types, age <70 vs 70+, pathology vs no pathology, better vs worse survival). Latest data Sep 2020

Cancer waiting times performance

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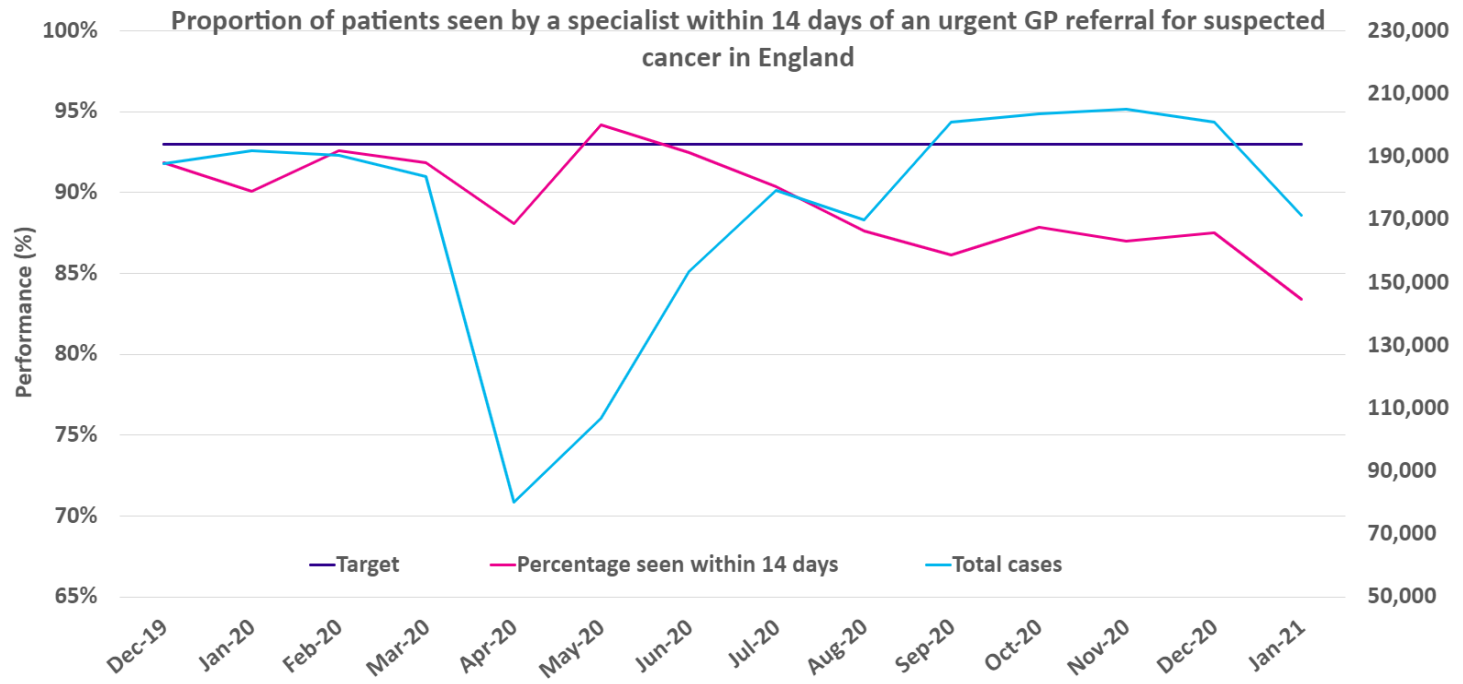
Impact on two week wait performance

Nation	Time period	Two Week Wait (target)
England	Apr-Jan	88.1% **(93%)**
Scotland	-	n/a
Northern Ireland	-	n/a
Wales	-	n/a



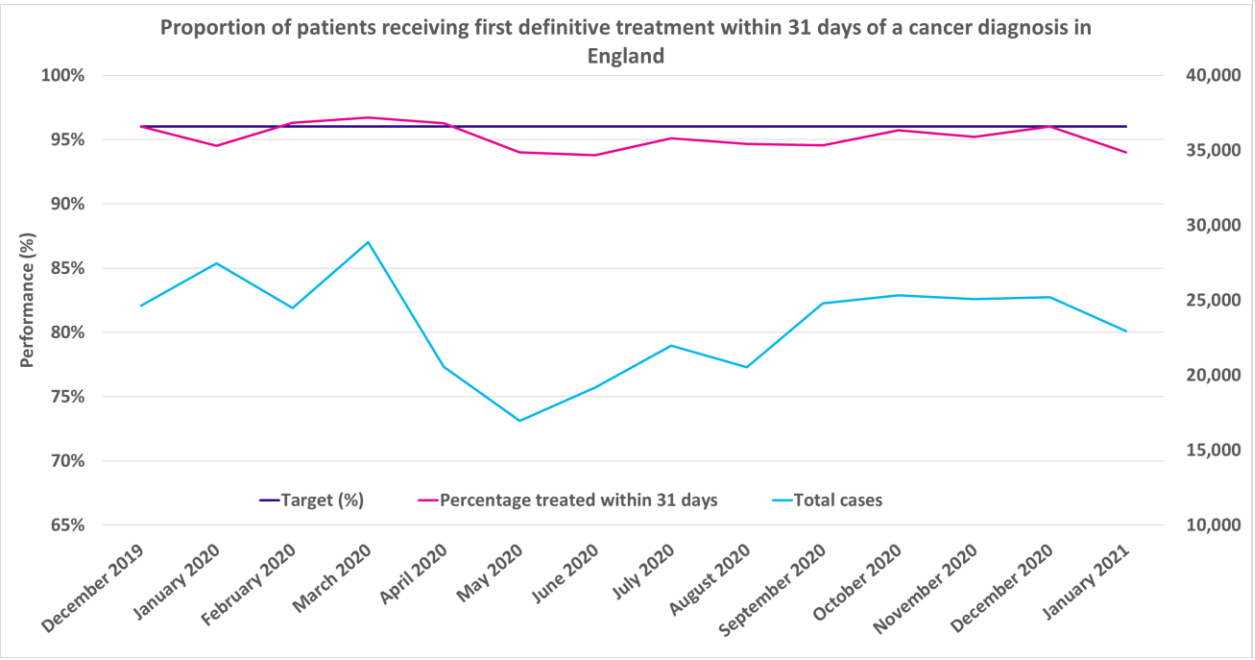
- The proportion seen within 14 days fell to 83% in January 2021

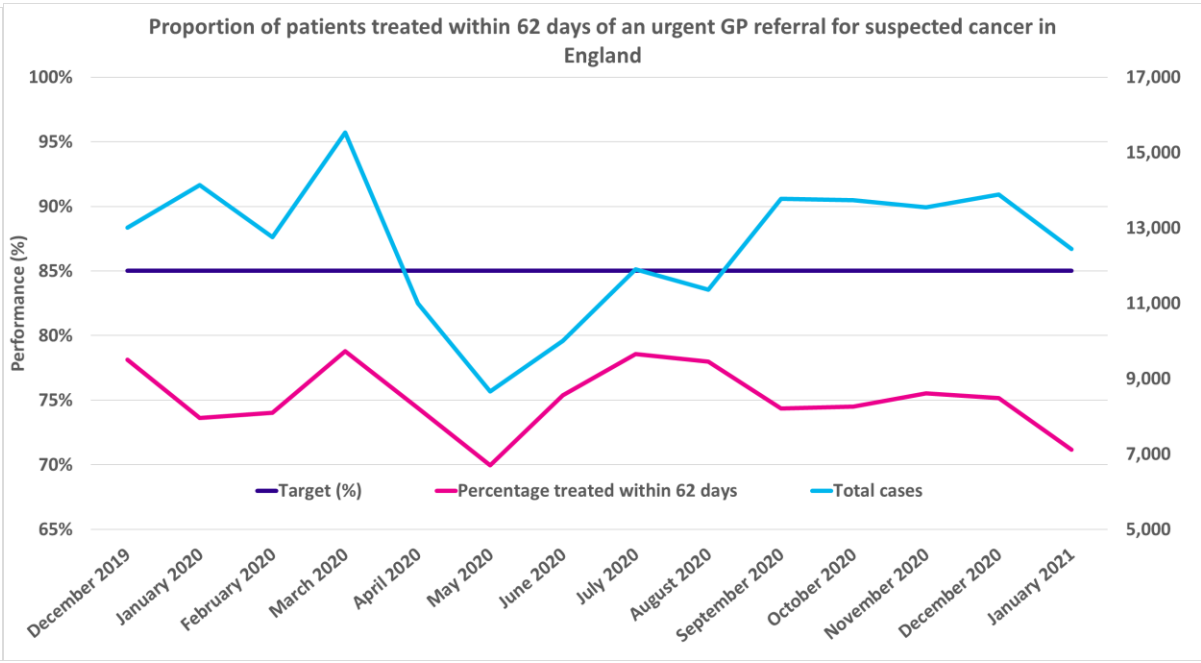
Data Source: NHSE Cancer Waiting Times data

Impact on 31 and 62 day wait performance

Nation	Time period	31 day wait (target)		62 day wait (target)	
England	Apr-Jan	95.0%	**(96%)**	74.8%	**(85%)**
Scotland	Apr-Sep	97.7%	**(95%)**	85.7%	**(95%)**
Northern Ireland	Apr-Sep	95.3%	**(98%)**	56.1%	**(95%)**
Wales	Apr-Oct	95.2%	**(98%)**	76.4%	**(95%)**

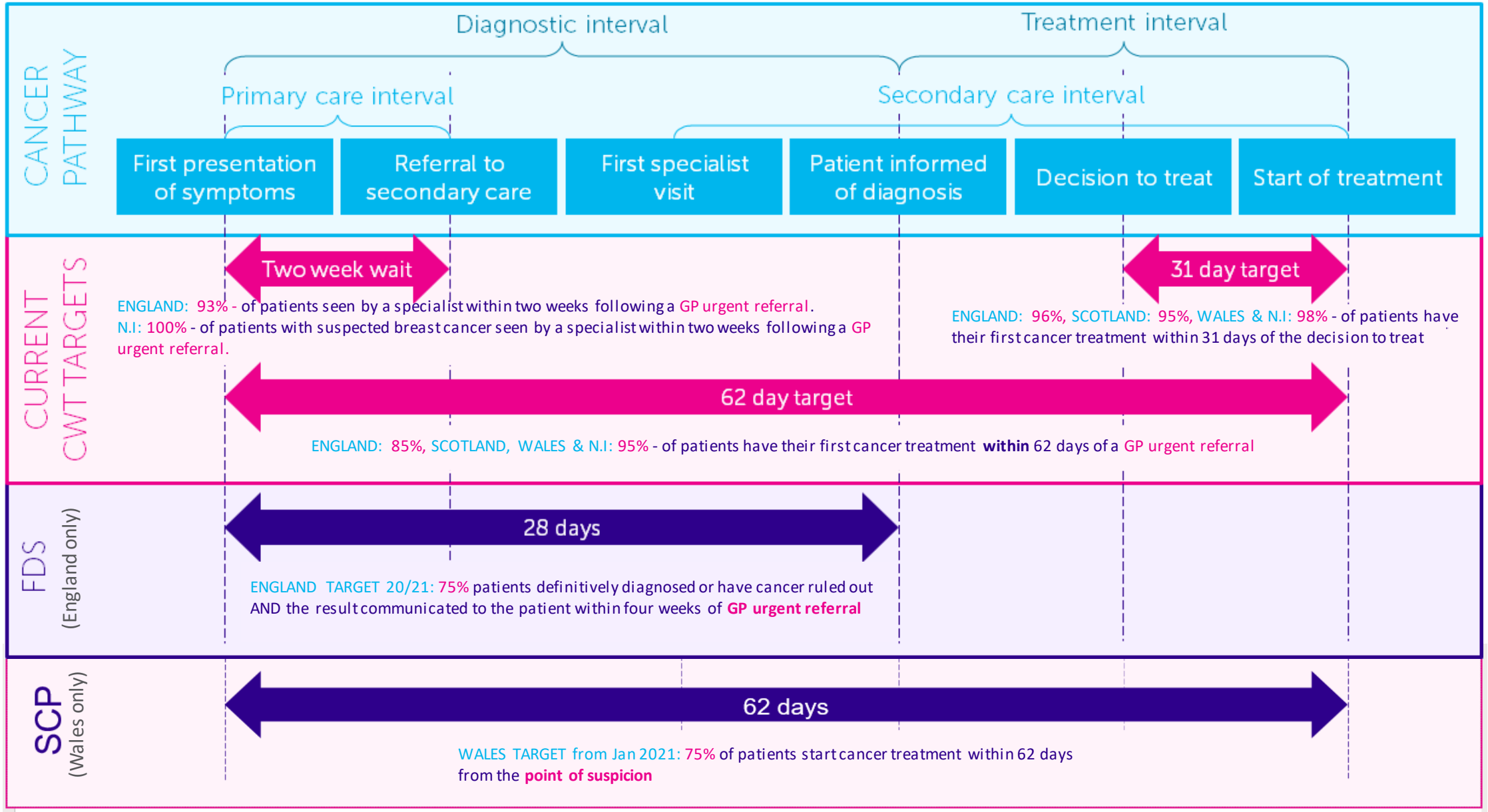
31 day wait target not as impacted as 62 day wait, example for England below:





Data Sources: NHS Cancer Waiting Times data (England); Public Health Scotland Cancer Waiting Times; Welsh Government Cancer Waiting Times; and, Dept. of Health Northern Ireland Waiting Times Statistics

Cancer waiting times targets



Appendix 1 – Dataset sources and updates

Dataset	Data source	Next update
Cancer Waiting Times Data - England	https://www.england.nhs.uk/statistics/statistical-work-areas/cancer-waiting-times/	April 2021
Cancer Waiting Times Data - Wales	https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Hospital-Waiting-Times/Cancer-Waiting-Times/Monthly	18th March 2021
Cancer Waiting Times - Scotland	https://beta.isdscotland.org/find-publications-and-data/conditions-and-diseases/cancer/cancer-waiting-times/	Updated quarterly, next update due 30th Mar 2021
Cancer Waiting Times – Northern Ireland	https://www.health-ni.gov.uk/articles/cancer-waiting-times	Updated quarterly, next update due 25th Mar 2021
NHSE Diagnostic Waiting Times and Activity Data (DM01) – England	https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/	15th April 2021
Department of Health (DOH) Diagnostic Waiting Times Data – Northern Ireland	https://www.health-ni.gov.uk/articles/diagnostic-waiting-times	Updated quarterly, next update estimated end of May 2021
NHS Wales Informatics Service (NWIS) Diagnostic Waiting Times data	https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Hospital-Waiting-Times/Diagnostic-and-Therapy-Services/waitingtimes-by-month	18th March 2021
Public Health Scotland NHS Diagnostic Waiting Times Data	https://beta.isdscotland.org/find-publications-and-data/healthcare-resources/waiting-times/nhs-waiting-times-diagnostics/	Updated quarterly, next update estimated end of May 2021
PHE NCRAS Rapid Registration Data - England	http://www.ncin.org.uk/collecting_and_using_data/rcrd	Monthly – although may only reflect data revisions rather than provide new months of data